

**MINUTES
of the
SECOND MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE**

**August 17, 2015
Rotunda Room, University of New Mexico Science and Technology Park
Albuquerque**

The second meeting of the Radioactive and Hazardous Materials Committee (RHMC) was called to order by Representative Cathrynn N. Brown, chair, on Monday, August 17, 2015, at 10:08 a.m. in the Rotunda Room at the University of New Mexico's Science and Technology Park in Albuquerque.

Present

Rep. Cathrynn N. Brown, Chair
Rep. Eliseo Lee Alcon
Sen. Ted Barela
Sen. Carlos R. Cisneros
Rep. Stephanie Garcia Richard
Sen. Carroll H. Leavell
Sen. Richard C. Martinez
Rep. G. Andres Romero
Rep. Larry R. Scott
Rep. James G. Townsend

Absent

Sen. Daniel A. Ivey-Soto, Vice Chair
Sen. Gay G. Kernan

Advisory Members

Sen. John Pinto
Sen. Nancy Rodriguez
Rep. Jim R. Trujillo

Sen. William F. Burt
Rep. David M. Gallegos
Sen. Ron Griggs
Sen. Stuart Ingle
Rep. Rod Montoya
Sen. William H. Payne
Rep. Nick L. Salazar
Sen. Clemente Sanchez

Guest Legislator

Sen. Jacob R. Candelaria

Staff

Gordon Meeks, Drafter, Legislative Council Service (LCS)
Renée Gregorio, Researcher II, LCS

Guests

The guest list is in the meeting file.

Handouts

Handouts and other written testimony are in the meeting file.

Monday, August 17

Representative Brown asked committee members and staff to introduce themselves after welcoming everyone to the RHMC meeting.

Federal Resource Conservation and Recovery Act of 1976 Overview

Kathryn Roberts, director of the Resource Protection Division at the Department of Environment (NMED), introduced the NMED's general counsel, Jeffrey Kendall, and Dennis McQuillan, chief scientist, who joined her. Representative Brown digressed from the agenda at hand to ask Ms. Roberts for an update on the Animas River spill.

Mr. Kendall assured the RHMC that in response to the spill, resources were deployed in the Farmington and San Juan County areas, and the NMED conducted sampling, checked domestic wells and communicated with local officials. Mr. McQuillan added that the NMED's immediate concern was to protect public health. He said that it took time for the contamination to flow down the Animas River into New Mexico and that the content of heavy metals was very high. He specified that this contamination was in a suspended state and that the dissolved levels were much lower. The NMED contacted representatives of drinking water systems, got them to take off intakes and worked with them to see how much supply they had; Farmington had about a 60-day supply. He emphasized that no one went without water and no one drank contaminated water. The NMED was immediately equipped to sample wells and got a huge turnout for this sampling. He said that the contaminant levels will have to be looked at again during spring runoff. He indicated that contaminated ditches were flushed out but that there are definitely serious long-term concerns.

Ms. Roberts steered the RHMC toward the agenda item at hand: the NMED's permitting process under the federal Resource Conservation and Recovery Act of 1976 (RCRA). Ms. Roberts reviewed the fundamental description of hazardous waste, what a hazardous waste management facility does and what laws and regulations govern these facilities. The waste can be liquid, solid or sludge and is the product of manufactured or discarded commercial products, she explained. The regulations track wastes from their origination to their "grave". Hazardous waste management facilities deal with the treatment, storage or disposal of waste, she added. Laws and regulations govern how waste is handled and include the RCRA, federal Hazardous and Solid Waste Amendments of 1984 and implementation of the RCRA program, which occurred in 1985 by the NMED's Hazardous Waste Bureau.

Ms. Roberts then gave details on the RCRA permit, which include that it is a legally binding document; it defines waste management activities and related conditions and requirements; that RCRA permits are comprehensive; and that the NMED has the authority to issue or deny such permits. She then delineated what entities need to obtain a RCRA permit, which includes facilities that treat, store or dispose of hazardous waste; new facilities before they begin operations; existing facilities whose permit is expiring; and facilities that qualify for interim status. She added that facilities that do not need a permit include businesses that generate hazardous waste but ship it off-site for treatment, storage or disposal; companies that only ship waste; and companies that store waste for less than 90 days.

Ms. Roberts went through the steps in the permitting process, which she described as lengthy. This process includes public meetings; submission of the permit application, which includes many elements; the NMED's review; application revisions, if required; the NMED's decision to issue or deny the permit; a final decision; and the right of the facility or the public to appeal the decision. She then described the opportunities for public participation in this process, which include a pre-application meeting, a public comment period, public meetings during the comment period and public hearings, if requested and granted.

Ms. Roberts spoke about the process of permit modifications for existing permits and the various classifications of these modifications that encompass minor, moderate and significant changes (Class 1, 2 or 3) and gave details and examples in each class. She then described corrective action under a permit, which is a mechanism for the investigation and cleanup of spills or other releases of hazardous waste or hazardous constituents to the environment. She added that cleanup is dependent on specific site conditions and that corrective action is designed to be flexible and is focused on results. Components of the corrective action process include investigation and characterization of the site; document review; field investigation; interim measures, which are designed to reduce immediate risk only; a corrective measures evaluation; and implementation, she explained.

She next gave an overview of permitted facilities in the state, which total 21 and are located all over the state. There are 10 commercial facilities and 11 federal facilities, with various sorts of units in each, including treatment, storage, disposal and post-closure care units. She added that all facilities are currently undergoing corrective action.

Committee members' questions and subsequent discussion included the following points:

- a determination by the NMED that the plume at Kirtland Air Force Base (KAFB) is not migrating toward the Ridgecrest wellfield, as was once thought;
- that the fuel spill at KAFB is a legacy historical release;
- the NMED's methods of regulating legacy sites and its decision-making process when there is not a responsible party;
- dealing with the cleanup of old uranium mines through the Superfund site process;
- ***defining hazardous waste (definition to be mailed to RHMC members);*
- the difference between a public meeting and a public hearing;

- the use of risk assessment guidelines by the Hazardous Waste Bureau for allowable concentrations in soil;
- the NMED's choice to allow for 60-day comment periods in situations where public interest is high;
- the NMED's approach to public comments as related to technical aspects as well as the comments of concerned citizens;
- the manner in which the NMED garners public interest during the draft stages of permitting, then works with concerned parties to try to avoid the need for formal hearings;
- RCRA regulations concerning old gas station site remediation and the use of the Corrective Action Fund;
- ***cumulative information as related to contaminated gas stations (the NMED will provide numbers to the RHMC); and*
- the length of permit applications as compared to the actual permit, which can amount to volumes.

At the end of this first presentation, Mr. Kendall introduced a new employee of the NMED, Michaelene Kyrala, who is the director of strategic initiatives and special projects.

KAFB Bulk Fuel Spill Status

Representative Brown spoke of how the fuel spill at KAFB had not been handled well historically, but that the NMED is now engaging with communities and requiring the U.S. Air Force to implement corrective measures, as Secretary of Environment Ryan C. Flynn said at the last meeting of the RHMC. He emphasized then that engagement is the key to success.

Ms. Roberts mentioned that she saw the morning's presentation as a critical lead-in to the afternoon's presentation on the status of the fuel spill. She added that Mr. McQuillan is a 36-year veteran of the NMED and has a wealth of knowledge about sites all over the state.

Mr. McQuillan was joined by Adria Bodour, technical project lead for the U.S. Air Force's Civil Engineer Center; Mary Lou Leonard, director of the City of Albuquerque's Environmental Health Department; Maggie Hart Stebbins, chair of the Albuquerque-Bernalillo County Water Utility Authority (WUA) Board and the Bernalillo County Commission; and Rick Shean, hydrologist for the Albuquerque-Bernalillo County WUA. Mr. McQuillan gave a brief history of the KAFB facility, highlighting the fact that although the facility was built in the 1950s and handled aviation gasoline and two types of jet fuel, neither of which contain the additive ethylene dibromide (EDB), and even though the handling of anything containing EDB ceased in 1975, what is contained in the ground water at the site is 40 years old. The main concern was the threat to the wells, but the plume is not exactly where it was originally thought to be, he said, and is not jeopardizing wells.

He then gave an overview of the spill discovery in 1999 and how residual fuel in the soil and ground water has been dealt with. He added that, although the City of Albuquerque used

surface water as part of the San Juan diversion to maintain a sustainable aquifer, this caused the water table to rise and oil to smear upwards. Mr. McQuillan spoke of the new initiatives that both Secretary Flynn and the Pentagon put together to create an interagency partnership to deal with the spill. He assured the RHMC that additional interim measures are being put into place, and progress is being made. In June of this year, the first gallon of ground water was removed, which is the first remediation, a significant step and a huge milestone.

Mr. McQuillan reviewed the regulatory basis for cleanup, which is driven by the NMED's administration of the federal Safe Drinking Water Act and the RCRA programs. Safe water that meets the standards under the act must be delivered, and public water systems must comply with these standards, he explained. KAFB also has to comply with the RCRA hazardous waste permit and corrective action process, he added. He explained that the RCRA process is now in a site-characterization phase, which will be followed by a robust public comment period in late 2016. He said that data will drive next steps and decisions and that these will be based on how the extraction wells perform and how the aquifer responds. Technical teams are reviewing various technologies to deal with the smeared oil, he added, and the U.S. Air Force is conducting tests; all interim measures will feed into the final corrective action remedy. Although the federal Safe Drinking Water Act requires that public water systems be tested every three years, KAFB has decided to test wells monthly instead, and no contamination has been found, he said.

Mr. McQuillan reviewed the anatomy and geology of the fuel spill, saying that within the spill site, the dissolved EDB is one of the most toxic and least biodegradable substances in the ground water. He pointed out the Rio Grande braided stream formation in the South Valley and how the footprint of the plume matches this stream path. He added that the alluvial fan and the ancestral Rio Grande areas are where the contamination lies. He also stated that there are nine supply wells in this area, and it looks like the plume is not migrating toward these wells but is migrating north-northwest, which is consistent with the geology.

Ms. Bodour reported that there has been a lot of progress in the past 12 months, some of which includes installing 16 new monitoring wells and a new extraction well. She said that the U.S. Air Force is also clear that there is no migration of the plume toward drinking water, but there are good reasons to be highly concerned because of the location of many drinking water supply wells near the plume. She added that when new wells were installed, the direction of the plume migration changed. She stated that the deeper monitoring wells help to show the extent of the body of the plume.

Ms. Bodour reviewed the methodology behind collapsing the EDB plume, which involves extracting, cooling, treating and ridding the area of contamination and happens over a 10-year period. A soil vapor system was installed in March 2003 through 2015, which removed and treated vapor. This system needs to be reviewed for efficiency, she added. For now, the focus is on the source area, with a new very sophisticated system completely above ground. She described the initial confusion at the former release area where the loading and unloading occurred, and a dime-sized hole was found where the leak occurred. The oil traveled across the

ground before going down; originally, it was thought there was a direct connection between the top surface and the underground, which is not so. There are monitoring wells in the area, which went through a shutdown test during which the system was turned off and the wells were monitored to evaluate the presence of vapor and hydrocarbons. These data are currently being evaluated, she added. Other technologies that are being investigated include microcosm testing, soil bio-respiration testing and bio-venting. An anaerobic biodegradation pilot test will also be done by the U.S. Department of Defense, she said.

In conclusion, Ms. Bodour stressed that drinking water supply wells show no contamination during monthly testing and that the EDB ground water plume is not migrating toward KAFB and Ridgecrest 3. She also mentioned that there will be a public field trip in October and a public meeting on November 17.

Ms. Leonard discussed the work of the City of Albuquerque, in which Mayor Richard Berry secured commitment from the U.S. Air Force for cleanup of the site and worked to ensure that progress was being made. She said that the city's Environmental Health Department brought its technical staff to the table and that an EQUIS database and mapping software were used as communication tools. She added that the city offered a licensing agreement and rights of way for well drilling, expedited the permitting process and coordinated community involvement and public participation.

Mr. Shean expressed appreciation for all parties involved in the cleanup work. He spoke about the 10 drinking water supply wells that the Albuquerque-Bernalillo County WUA has in the area of the plume and the needs for the WUA to know if the water is contaminated. The WUA also needs to share information with other stakeholders over time. He said that the WUA was able to provide guidance to the governing board and to consult with the city about strategies for dealing with the plume. He added that independent review and assistance have been active this past year and that although the WUA experienced a lot of initial discouragement, now it is clear that there is an aggressive plan.

The RHMC took a few minutes to receive a motion and a second and to unanimously approve the minutes for the June 2 meeting.

Ms. Stebbins, in her roles as chair of both the WUA and county commission, stressed that the delivery of safe, clean drinking water is the WUA's mission. She stated that the utility's nearest well is less than a mile from the heart of the contamination plume, which has been a significant concern. She said that the contamination is more than just a spill, that it affects the entire water supply as well as the economy and that in addition to protecting the water supply, the WUA has to ensure economic development of the city. She added that the solution has been the drilling of remediation wells to remove fuel before it reaches the production wells. In 2010, the WUA began inviting the U.S. Air Force and the NMED to its board meetings to discuss the spill and keep it informed on remediation efforts. She said she sponsored a resolution to get an environmental consultant on board when the U.S. Air Force was slow to respond initially, and

this helped immensely. She concluded by stating that, two years ago, she was not as optimistic as she is today, largely due to the changes that have produced aggressive action since Secretary Flynn took the reins, that the U.S. Air Force has brought the right resources to the table and that both New Mexico's congressional delegation and legislature have all contributed to the oversight and remediation efforts.

Committee members' questions and subsequent discussion included the following points:

- how difficult it is to nail down the number of gallons lost and treated, but the estimated loss is four million gallons, with 500,000 gallons treated;
- an estimate of fuels contained in soil and ground water and where recovery stands now;
- that the NMED provides free testing at private domestic wells, and 1,200 public supply sources are tested routinely as required by federal law;
- that sometimes the contamination of ground water follows underground utilities, and this may have happened at the Railroad Avenue plume in Espanola;
- ***a request for slides to be given to the RHMC on the treatment process for EDB;*
- an estimate of cleanup phases, with the dissolve phase taking 10 to 15 years;
- a cost estimate of cleanup work at \$100 million from 1999 to now, with a projected 30-year-cycle cost of \$125 million more;
- that the U.S. Air Force is committed to seeing this cleanup through;
- that more monitoring wells would be installed if there are more data gaps;
- the noise factor with extraction wells, but once installed, the work goes on underground;
- the strategic planning process as a public involvement process; in November, the NMED will have completed another strategic plan, which will be put out for public comment;
- determining compliance on the state's monitoring wells;
- how the leak went undetected and how this related to the design of the system and the way fuel measurements were made;
- the process and results of soil removal; and
- the effect, if any, of the spill on property values.

The chair called for any public comment, and the following people participated:

- the New Mexico Public Interest Research Group with a funding question, which revealed that the U.S. Air Force pays for the cleanup through congressional action;
- Mike Wallace, a hydrologist, clarifying whether the EDB plume is also a "floater", which reveals that EDB is soluble and will act and move with the water; and
- James Rivera, with a question about the extent of the leakage, revealing that the plume is 7,000 feet long.

Finally, Senator Pinto expressed concern over the San Juan River spill and subsequent contamination. Mr. McQuillan responded that the NMED is very concerned about the spill and is monitoring the Animas and San Juan rivers independent of the federal Environmental

Protection Agency. He reported that contamination levels decrease significantly as the river flows down into New Mexico but that there is a lot more work to be done to address the effects on wildlife in the area.

Adjournment

There being no further business, the committee adjourned at 2:43 p.m.